ANNALS OF OTOLOGY, RHINOLOGY & LARYNGOLOGY

ANNALS OF HEAD & NECK MEDICINE & SURGERY®

Founded in 1892

VOLUME 95, JANUARY—DECEMBER 1986
Issues 1—6, Supplements 122—127

Published by

Annals Publishing Company
4507 Laclede Avenue
St Louis, Missouri 63108

Copyright 1986, Annals Publishing Company

ANNALS OF OTOLOGY, RHINOLOGY & LARYNGOLOGY

ANNALS OF HEAD & NECK MEDICINE & SURGERY®

Editor

BRIAN F. MCCABE, MD
Iowa City

Associate Editors

CHARLES D. BLUESTONE, MD
Pittsburgh

BARBARA A. BOHNE, PHD
St Louis

LEE A. HARKER, MD
Iowa City

Board of Editors

JOHN G. BATSAKIS, MD ..... Houston
ROBERT W. CANTRELL, MD ..... Charlottesville
JACK D. CLEMIS, MD ..... Chicago
ALFRED C. COATS, MD ..... Houston
CHARLES W. CUMMINGS, MD ..... Seattle
LAWRENCE W. DESANTO, MD ..... Rochester, Minn
MANUEL DON, PHD ..... Anaheim, Calif
PATRICK J. DOYLE, MD ..... Vancouver
ARNDT J. DUVALL III, MD ..... Minneapolis
UGO FISCH, MD ..... Zurich
WILLIAM F. HOUSE, MD ..... Los Angeles
STEVEN K. JUHN, MD ..... Minneapolis
JEROME O. KLEIN, MD ..... Boston
DAVID J. LIM, MD ..... Columbus
FRANK E. LUCENTE, MD ..... New York
JOSEF MILLER, PHD ..... Ann Arbor
WILLIAM W. MONTGOMERY, MD ..... Boston
EUGENE N. MYERS, MD ..... Pittsburgh
YASUYA NOMURA, MD ..... Tokyo
FRANK N. RITTER, MD ..... Ann Arbor
ROBERT J. RUBEN, MD ..... Bronx
JACOB SADÉ, MD ..... Kfar Saba, Israel
ISAMU SANDO, MD ..... Pittsburgh
CLARENCE T. SASAKI, MD ..... New Haven
HARVEY M. TUCKER, MD ..... Cleveland
ALFRED L. WEBER, MD ..... Boston

Book Review Editor

DENNIS G. PAPPAS, MD ..... Birmingham, Ala

Emeritus Board Members

MAXWELL ABRAMSON, MD ..... New York
MICHELE ARSLAN, MD ..... Padua, Italy
WALTER C. BAUER, MD ..... St Louis
WESLEY H. BRADLEY, MD ..... Albany
D. THANE CODY, MD ..... Rochester, Minn
SEYMOUR COHEN, MD ..... Los Angeles
FRANCIS W. DAVISON, MD ..... Danville, Pa
CHARLES F. FERGUSON, MD ..... Sarasota, Fla
JOHN M. FREDRICKSON, MD ..... St Louis
STANTON A. FRIEDBERG, MD ..... Chicago
RICHARD R. GACEK, MD ..... Syracuse
GEORGE A. GATES, MD ..... San Antonio
JOSEPH L. GOLDMAN, MD ..... New York
JEROME C. GOLDSTEIN, MD ..... Albany
VICTOR GOODHILL, MD ..... Los Angeles
C. A. HAMBERGER, MD ..... Stockholm
D. F. N. HARRISON, MD ..... London
VINCENT J. HYAMS, MD ..... Washington, DC
L. B. W. JONGKEES, MD ..... Amsterdam
SAM E. KINNEY, MD ..... Cleveland
JOHN A. KIRCHNER, MD ..... New Haven
FRED H. LINTHICUM, JR, MD ..... Los Angeles
CARY N. MOON, JR, MD ..... Charlottesville
MICHEL PORTMANN, MD ..... Bordeaux, France
LORING W. PRATT, MD ..... Waterville, Me
GUNNER O. PROUD, MD ..... Kansas City, Kan
WILLIAM H. SAUNDERS, MD ..... Columbus
HAROLD F. SCHUKNECHT, MD ..... Boston
F. BLAIR SIMMONS, MD ..... Palo Alto
CATHERINE A. SMITH, PHD ..... Portland, Ore
RUEDIGER THALMANN, MD ..... St Louis
JUERGEN TONNDORF, MD ..... New York
PAUL H. WARD, MD ..... Los Angeles

ANNUAL INDEX

AUTHORS

Abramson M, 158
Alberti P, 514
Albiin N, suppl 126
Aldridge J, 196
Altman N, 162
Amatsu M, 181, 373
Andersen R, 352
Anim JT, 260
Applebaum EL, 439
Aran J-M, 389
Aronson AE, 137
Aufdemorte TB, 608
Avery CA, 46, 472

Bagger-Sjöbäck D, 409
Ballad WJ, 520
Balle V, 352
Balm AJM, 572
Baraka ME, 260
Bartley ML, 531
Batsakis JG, 107, 211, 321, 434, 543, 649
Ben-David Y, 365
Benjamin B, 207
Berg H, 21
Bhattacharyya TK, 510
Biller HF, 447, 586
Blitzer A, 158
Bluestone CD, 101
Bobier GD, 331
Boles R, 651
Bollobas B, 444
Bordash GD, 162
Brackmann DE, 12, 76
Bretlau P, 32, 278
Brito-Filomeno L, 582
Brookhouser PE, 51
Brown OE, 480
Budetti JA, 466
Burns DK, 383
Burres SA, 238

Camilon F, 505
Cantekin EI, 369
Catanzaro A, 242
Cerne A, suppl 126
Chen Y, 348
Chole RA, 169, 639
Clemis JD, 520
Close LG, 383
Cohen NL, 21
Cohen SR, suppl 127
Coker NJ, 5
Cole P, 233
Cooper JC, 46
Cooper JD, 582
Coury WJ III, 267
Cramer HB, 169
Cremers CWRJ, 167, 173
Crumley RL, 110 (book review)

Dankle SK, 626
Dauman R, 389
Dayal VS, 510
Dedo HH, 547
DeLozier HL, 377
Dent LJ, 71
Derlacki EL, 525
Deutsch EC, 439
Diven WF, 304
Djaldetti M, 302
Dolan KD, 654 (book review)
Donti E, 294
Dormer K, 60
Doyle WJ, 267
Duckert LG, 185
Dunn VD, 432
Dyrmose J, 421

Eby TL, 356
Edelstein DR, 447
El-Dibany MM, 225
El-Garf A, 225
Elson L, 556
Epstein GH, 40
Epstein L, 365

Fabian R, 541
Fanò G, 294
Fee WE Jr, 653 (book review)
Ferlito A, 275, 590
Fernandes CMC, 264
Fifer R, 151
Fisch U, 5
Fradis M, 365
Friberg U, 409

Gantz BJ, 454
Gates GA, 46, 472
Gentile RD, 622
Gimsing S, 421
Glackin R, 83
Glew RH, 304
Glick R, 487
Goodwin WJ Jr, 162
Grote JJ, suppl 123:1, 6, 10
Grundfast KM, 505
Guerry TL, 547
Gyo K, 323

Haight JSJ, 233
Hall JW III, 525
Hamaguchi Y, suppl 124:1, 5, 9
Hammerschlag P, 21
Hansen JM, 278
Harada T, 404
Harker LA, 454
Harner SG, 146, 546 (letter to editor)
Harris JP, 176, 242
Harris SD, 436 (book review)
Harrison DFN, 561
Hayes E, 541
Hearne EM, 46
Heermann J, 631
Heinze E, 91
Hellström S, suppl 126
Herzon GD, 28
Hicks JN, 653 (book review)
Himelick T, 60, 498
Hinojosa R, 466
Hirano M, 576
Hirata K, suppl 124:1
Hoefnagels WHL, 173
Holliday MJ, 336
Holt GR, 46, 608
Hoogland GA, 167
Hopp ML, 1
Horn KL, 12
Hough J, 60, 460, 498
House JW, 16
Hsu M-M, 298
Huang C-C, 158
Huang T-S, 190, 401
Hughes GB, 250
Huijing F, 162
Hyams VJ, 437 (book review)
Hybbinette J-C, 94
Hyde M, 514

Ikeda M, 396
Iwamori M, 404

Jackler RK, 16, 66
Jafar J, 487
Jenkins HA, 5, 151
Jerger J, 151
Johnsen NJ, 32
Johnson A, 415
Johnson B, 60, 498
Johnson DW, 196
Jones MM, 336
Joseph MP, 215

Kaga K, 203
Kaneko M, 447
Karim ABMF, 572
Kashima H, 603
Kastenbauer ER, 126
Kazan RP, 28
Kern EB, 229
Killion MC, 520
Kim GS, 415
Kinishi M, 181, 373
Kitajiri M, 267
Kitazumi E, 203
Kiyokawa K, 576
Kodama K, 203
Kohut RI, 466
Kokubu M, 373
Kolkova Z, 208
Kuhajda F, 603
Kuijpers W, suppl 123:1
Kumar A, 487
Kurita S, 576

LaMarco KL, 304
Laukli E, 327
Laurian N, 208
Lawson W, 586
Lewinski U, 302
Li Y-L, 514
Lietman P, 83
Lin B-L, 298
Lindberg S, 94
Liu C, 567
Lorraine A, 196
Loury M, 603
Lowder MW, 655 (book review)
Lucente FE, 436 (book review)
Lusk RP, 213, 436 (book reviews); 319, 432
Luxford WM, 12

Machino M, 193, 284
Mafee M, 487
Magilner AD, 106
Mair IWS, 327
Majima Y, suppl 124:1, 5, 9
Makino K, 373
Margalit A, 365
Marsh BR, 336
Marsh R, 203

Marshak G, 222
Matsubara T, suppl 124:1
Matsumoto N, 514
Maurizi M, 294
McCabe BF, 142, 213 (book review), 454
McCaffrey TV, 229
McClead RE, 626
Mecklenburg D, 151
Meister M, 415
Menezes AH, 319
Mercke U, 94
Merkel M, 383
Merwin GE, 78
Meyerhoff WL, 480
Miller JM, 185
Miller RH, 622
Mittelman M, 302
Miyamoto RT, 647
Miyoshi Y, suppl 124:1, 5
Mizukoshi O, 193, 284
Moeller MP, 51
Montgomery SK, 215, suppl 125
Montgomery WW, 121, 215, suppl 125
Morioka H, 193, 284
Mounts P, 603
Mrowinski D, 126
Myers EN, 101, 546 (book review)

Nadol JB Jr, 313, 356
Nagai Y, 404
Nakatani H, suppl 122:13
Neely JG, 460
Neues D, 631
Niparko JK, 444
Njo KH, 572
Nomura Y, 404
Norrell H, 545 (letter to editor)

O'Donoghue GM, 66
Ogarten U, 302
Okuno H, 267
Olin WH, 655 (book review)
Ophir D, 222
Ostri B, 278
Ottaviani F, 294

Paludetti G, 294
Pappas DG, 436, 437, 653, 654, 655 (book reviews)
Parisier SC, 447
Parnes LS, 454
Parving A, 278
Parving H-H, 278
Pearson FG, 582
Peeters GJHCM, 173
Pinckers AJLG, 173
Pirsig W, 91
Pleet L, 567
Podoshin L, 365
Popelka GR, 415
Portmann M, 389
Prihoda TJ, 472
Proctor B, 444
Proctor L, 83

Ramig LA, 288
Ransohoff J, 21
Rask-Andersen H, 409
Raslan W, 28
Rasmy E, 645
Recher G, 275
Rontal E, 556
Rontal M, 556
Rosen A, 222
Rutherford I, 250
Rutledge JC, 480
Ryan AF, 176, 242

Sacks SH, 447
Sakakura K, suppl 124:9
Sakakura Y, suppl 124:1, 5, 9
Samuel J, 264
Sando I, 101, 267, 396
Santiago-Diez de Bonilla J, 229
Sapir S, 137
Sato K, 576
Scamman FL, 142
Schaefer SD, 383
Schefter RP, 146, 546 (letter to editor)
Schindler RA, 66
Schreiber AD, 40
Schuknecht HF, 36, 132, 531
Schuller DE, 626
Schweitzer VG, 331
Shea JJ III, 12
Sheridan PJ, 608
Sherman RE, 196
Shikhani AH, 336
Shimizu H, 83
Shinkawa H, 313
Silverman S Jr, 547
Silverstein H, 545 (letter to editor)
Simmons FB, 71, 132
Simpson LC, 655 (book review)
Smith C, 83
Smith L, 132
Smith MFW, 1
Smoker WRK, 319
Smouha E, 447
Snow GB, 572
Sofferman RA, 377
Stenfors L-E, suppl 126
Stool SE, 655 (book review)
Strauss M, 208
Sun YE, 348

Tachibana M, 193, 284
Takahara T, 101, 267
Takeuchi K, suppl 124:1
Talaat AM, 225
Tamir A, 365
Tani M, 373
Tanimura F, 193, 284
Tardy ME Jr, 109 (book review)
Thoma J, 126
Thomas JE, 137
Thompson JW, suppl 127
Thomsen J, 32
Tiwari RM, 572
Tos M, 32, 352
Tsuruoka T, 193
Tucker HM, 618
Turner PA, 215
Tyler RS, 109, 213, 437 (book reviews)

Ukai K, suppl 124:5

Van Blitterswijk CA, suppl 123:1, 6
Van Compernolle D, 71
Van Nostrand AWP, 601
Veldman JE, 535
Venti Donti G, 294
Vernick DM, 477
Vernon J, 60
Versluis RJJ, 572
Vetter U, 91
Voight KH, 91

Wackym PA, 409
Waluch V, 16
Wang TD, 348
Ward PH, 567
Wasserman SI, 242
Watanabe K, 309, 427
Weber AL, 541
Weisberg V, 586
Weisman RA, 40
Weissler MC, 215
Wenokur ME, 556
Whyte MP, 415
Wiet RJ, 28
Wilbur R, 110 (book review)
Wolfman DE, 639
Woodson GE, 622
Woolf NK, 176
Worth RM, 647
Wright CG, 480

Yagi N, suppl 122:3, 7, 13
Yanagihara N, 323
Yee AL, 369
Yokochi K, 203

Zenner H-P, 115
Zohar Y, 208
Zwillenberg S, 40

SUBJECTS

Acoustic neuroma
Complications in approach to acoustic tumor surgery, 28
Magnetic resonance imaging in acoustic neuroma diagnosis, 16
Middle cranial fossa acoustic neuroma excision, 454
Surgery: preservation of hearing, 21
See also Schwannoma

Acoustic reflex
Efficacy of acoustic reflectometry in detecting middle ear effusion, 472

Adhesive
New autologous fibrinogen-based adhesive for otologic surgery, 40

Aging
Comparative study of age-related cochlear hair cell loss, 510
Estrogen receptor in larynx of aged baboon, 608

Anesthesia
Anesthetic management for tracheobronchial laser surgery, 556
Intranasal microsurgery of all paranasal sinuses, septum, and lacrimal sac with hypotensive anesthesia, 631

Angiography
Endoscopic method of tympanic membrane fluorescein angiography, 439

Audiant Bone Conductor
Implantable bone conduction hearing device, 498

Audiometry
Air conduction thresholds after myringoplasty and stapes surgery: a conventional and high frequency audiometric comparison, 327
Audiologic findings in young patients with hypophosphatemic bone disease, 415
Audiological and temporal bone findings in myxedema, 278
Auditory evoked potentials in audiometric assessment of compensation and medicolegal patients, 514

Auditory brain stem potentials
Absence of later auditory brain stem response components, congenital horizontal nystagmus, and hypotonia in male infants, 203
Auditory evoked potentials in audiometric assessment of compensation and medicolegal patients, 514
Clinical use of insert earphone, 520

Autoimmunity
Atypical Cogan's syndrome: autoimmune disease? 173
Cochlear and retrocochlear immune-mediated inner ear disorders, 535
Reexamination of experimental type II collagen autoimmunity, 176

Book Reviews
Bailey BJ, Biller HF, *Surgery of the Larynx*, 653
Ballenger JJ, *Diseases of the Nose, Throat, Ear, Head and Neck*, 436
Berlin C, *Hearing Science: Recent Advances*, 214
Bluestone C, Stool S, *Pediatric Otolaryngology*, 213
Cohen MM Jr, Rollnick BR, *Craniofacial Dysmorphology: Studies in Honor of Samuel Pruzansky*, 655
Dedo DD, *The Atlas of Aesthetic Facial Surgery*, 109
Dumon JF, *YAG Laser Bronchoscopy*, 653
Gould WJ, Lawrence VL, *Surgical Care of Voice Disorders*, 436
Hughes GB, *Textbook of Clinical Otology*, 213
Jacobson JT, *The Auditory Brainstem Response*, 437
Jerger J, *Hearing Disorders in Adults: Current Trends*, 213
Jerger J, *Pediatric Audiology: Current Trends*, 213
Keidel WD, Finkenzeller P, *Artificial Auditory Stimulation Theories*, 109
Mathog RH, *Maxillofacial Trauma*, 110
Mancuso AA, Hanafee WN, *Computer Tomography and Magnetic Resonance Imaging of the Head and Neck*, 654
McWilliams BJ, Morris HL, Shelton RL, *Cleft Palate Speech*, 655
Michaels L, *Pathology of the Larynx*, 437
Oosterveld WJ, *Otoneurology*, 437
Orlans H, *Adjustment to Hearing Loss*, 655
Quigley S, Paul P, *Language and Deafness*, 110
Regenbogen LS, Coscas GJ, *Oculo-Auditory Syndromes*, 654
Schindler RA, Merzenich MM, *Cochlear Implants*, 654
Stahle J, *The Vestibular System: Fundamental & Clinical Observations*, 653
Strome M, Kelly JH, Fried MP, *Manual of Otolaryngology*, 655
Thaller SR, Granick MS, *Otolaryngology*, 436
Wolf GT, *Head and Neck Oncology*, 546

Brain stem. *See* Auditory brain stem potentials

Branchio-oto-renal dysplasia
In three families, 421

Carcinoma — larynx
Demonstration of human papillomavirus capsid antigen in carcinoma in situ of larynx, 603
Diagnosis and treatment of small cell carcinoma of larynx, 590
Imbrication reconstruction following partial laryngectomy, 567
Selective killing of laryngeal carcinoma cells by monoclonal immunotoxin, 115

Carcinoma — monoclonal antibodies
Characterization of T cell subsets using monoclonal antibodies in nasopharyngeal carcinoma patients, 298
Demonstration of human papillomavirus capsid antigen in carcinoma in situ of larynx, 603
Quiet revolution. Techniques of cell biology applied to tissue diagnosis, 601
Selective killing of laryngeal carcinoma cells by monoclonal immunotoxin, 115

Carcinoma — oral cavity
Carbon dioxide resection of superficial oral carcinoma, 547
Carcinomas of submandibular and sublingual glands, 211
Computed tomography in assessment of mandibular invasion by intraoral carcinoma, 383
Inhibition of hamster tongue carcinogenesis by selenium and retinoic acid, 162

Carcinoma — verrucous
Verrucous carcinoma of temporal bone, 447

CHARGE association
Auditory and temporal bone abnormalities in CHARGE association, 480

Chemotherapy
Inhibition of hamster tongue carcinogenesis by selenium and retinoic acid, 162
Long-term results of concurrent polychemotherapy and radiotherapy in patients with stomal recurrence after total laryngectomy, 572
Selective killing of laryngeal carcinoma cells by monoclonal immunotoxin, 115

Cholesteatoma
Double intratemporal congenital cholesteatomas combined with ossicular anomalies, 410
Epidemiologic study among members of kibbutzim in northern Israel, 365
Experimental retraction pocket cholesteatoma, 639
Supratubal recess in cholesteatoma surgery, 12

Chondroblastoma
Of temporal bone: unusual histologic features, 260

Cochlea. *See* Ear, inner — cochlear division

Cochlear implant. *See* Implant, cochlear

Cogan's syndrome, atypical
Autoimmune disease? 173

Computed tomography
In assessment of mandibular invasion by intraoral carcinoma, 383

Craniovertebral junction
Diagnosis and management of anomalies of craniovertebral junction, 487

Dacryocystorhinostomy, 352

Dipyridamole-induced epistaxis, 302

Ear, external
Auditory and temporal bone abnormalities in CHARGE association, 480
Branchio-oto-renal dysplasia in three families, 421
External auditory canal stenosis and partial atresia without associated anomalies, 505

Ear, inner — cochlear division
Change in capillary permeability of stria vascularis by different methods of death and fixation, 427
Cochlear and retrocochlear immune-mediated inner ear disorders, 535
Comparative study of age-related cochlear hair cell loss, 510
Histopathology of inner ear in Usher's syndrome as observed by light and electron microscopy, 313
Ultrastructural characteristics of capillaries entering and leaving stria vascularis, 309

Ear, inner — round window
Anatomy of round window niche, 444
Ototoxicity of neomycin and penetration through round window membrane, 404

Ear, inner — vestibular division
Perilymphatic fistula, 466
Primary intralabyrinthine schwannoma, 190
Reference values for serial vestibular testing, 83

Ear, inner — vestibulocochlear nerve
Histologic study of vestibulocochlear nerve, 146
Letters to the Editor, 545, 546
See also Acoustic neuroma

Ear, middle — anatomy
Effect of changes in systemic oxygen tension on middle ear gas exchange, 369
Endoscopic method of tympanic membrane fluorescein angiography, 439
Middle ear mucosa in rats and humans, suppl 126
Secondary immune response in middle ear: immunological, morphological, and physiological observations, 242

Ear, middle — effusion
Efficacy of acoustic reflectometry in detecting middle ear effusion, 472
Predictive value of tympanometry in middle ear effusion, 46
Rheological and biochemical properties of middle ear effusion, suppl 124

Ear, middle — pathology
Congenital stapes ankylosis by elongation of pyramidal eminence, 167
Double intratemporal congenital cholesteatomas combined with ossicular anomalies, 401
Dynamics of otosclerosis-like lesions in LP/J mice, 169
Experimental alteration of chinchilla middle ear mucosae by bacterial neuraminidase, 304

Ear, middle — prostheses
Cochlear implantation: strategies to protect implanted cochlea from middle ear infection, 66
Histopathology of ear after 5 years of electrical stimulation, 132
Implantable bone conduction hearing device: Audiant Bone Conductor, 498
Porous polyethylene prosthesis, 76
Stapedius reflex to electrical stimulation in patient with cochlear implant, 151
See also Prosthesis, ossicular

Ear, middle — stapes surgery
Air conduction thresholds after myringoplasty and stapes surgery: conventional and high frequency audiometric comparison, 327
Experimental investigations on suitability of carbon dioxide laser for stapedotomy, 126
Stapedectomy results in residency training program, 477

Ear, middle — surgery
Effect of conductive hearing loss and middle ear surgery on binaural hearing, 525
New autologous fibrinogen-based adhesive for otologic surgery, 40
Obliteration of middle ear and mastoid cleft in subtotal petrosectomy, 5
See also Cholesteatoma
See also Otosclerosis

Electrocochleography
Summating potential and water balance in Meniere's disease, 389

Endoscopy
Endoscopic method of tympanic membrane fluorescein angiography, 439

Epistaxis
Dipyridamole-induced, 302

Esophagus
Free jejunal grafts for reconstruction of pharynx and cervical esophagus, 348
Manual for use of Montgomery laryngeal, tracheal, and esophageal prostheses, suppl 125
See also Tracheoesophageal shunt

Eustachian tube
Experimental retraction pocket cholesteatoma, 639
Lymphoma invading anterior eustachian tube: temporal bone histopathology of functional tubal obstruction, 101
Method of histopathological analysis of temporal bone and eustachian tube and accessory structures, 267

Facial paralysis
Objective grading of facial paralysis, 238

Fibromatosis
Supraclavicular fibromatosis with intraspinal extension, 319

Glottis. *See* Larynx

Goldenhar's syndrome
Temporal bone histopathologic findings in oculoauriculovertebral dysplasia, 396

Growth hormone
Influence of growth hormone on nasal septal growth in rats, 91

Habilitation
Choosing habilitative track for newly identified hearing-impaired child, 51

Hearing aid
Clinical use of insert earphone, 520
Experiences with implantable hearing devices and presentation of new device, 60
Implantable bone conduction hearing device: Audiant Bone Conductor, 498

Hearing, binaural
Effect of conductive hearing loss and middle ear surgery on binaural hearing, 525

Hearing loss
Auditory and temporal bone abnormalities in CHARGE association, 480
Clinical use of insert earphone, 520
Effect of conductive hearing loss and middle ear surgery on binaural hearing, 525
Extended high frequency hearing sensitivity; normative threshold study in musicians, 196
Malleus grip prosthesis, 531
See also Audiometry

Hemangioma
Infantile subglottic hemangiomas, 336
Vascular tumors of salivary glands, 649

Histiocytosis, sinus
Sinus histiocytosis with massive cervical lymphadenopathy, 331

Human papillomavirus
Demonstration of human papillomavirus capsid antigen in carcinoma in situ of larynx, 603

Huntington's disease
Acoustic analyses of phonation in patients with, 288

Hypophosphatemic bone disease
Audiologic findings in young patients with, 415

Immune response, secondary
In middle ear: immunological, morphological, and physiological observations, 242

Immunocytochemistry — nasal secretions
Amylase secretion by nasal glands, 284
Lysozyme producers in nasal mucosa, 193

Immunocytochemistry — tumors
Characterization of T cell subsets using monoclonal antibodies in nasopharyngeal carcinoma patients, 298
Collagenase in human head and neck tumors and rat tumors and fibroblasts in monolayer cultures, 158
Demonstration of human papillomavirus capsid antigen in carcinoma in situ of larynx, 603
Quiet revolution: techniques of cell biology applied to tissue diagnosis, 601

Selective killing of laryngeal carcinoma cells by monoclonal immunotoxin, 115

Implant
Clinical assessment of ossicular mobility by ceramic vibrator designed for implantable hearing aids, 323
Comparison of different speech processing strategies on patients receiving same implant, 71
Reconstruction of middle ear with hydroxyapatite implants, suppl 123
See also Prosthesis

Implant, cochlear
Postnatal growth of human temporal bone; implications for cochlear implants in children, 356
Stapedius reflex to electrical stimulation in patient with cochlear implant, 151
Strategies to protect implanted cochlea from middle ear infection, 66

Implant — electrical stimulation
Experiences with implantable hearing devices and presentation of new device, 60
Histopathology of ear after 5 years of electrical stimulation, 132
Implantable bone conduction hearing device: Audiant Bone Conductor, 498
Mechanisms of electrically induced damage after cochlear implantation, 185
Stapedius reflex to electrical stimulation in patient with cochlear implant, 151

Inner ear. *See* Ear, inner

Lacrimation
Evaluation of the thread test of lacrimation, suppl 122

Larynx
Estrogen receptor in larynx of aged baboon, 608
New adult microlaryngoscope, 207
Posterior glottis. Morphological study in excised human larynges, 576
Victor Negus: 57 years later, 561

Larynx — pathology
Laryngeal involvement by mycosis fungoides, 275
Long-term results of concurrent polychemotherapy and radiotherapy in patients with stomal recurrence after total laryngectomy, 572
Lymphangiomas of larynx in infants and children, suppl 127
Risk factors for neonatal acquired subglottic stenosis, 626
Vocal cord paralysis in children 1 year of age and younger, 622
Vocal cord paralysis in small children: principles in management, 618
See also Carcinoma — larynx

Larynx — surgical procedures
Experience with partial cricoid resection and thyrotracheal anastomosis, 582
Imbrication reconstruction following partial laryngectomy, 567
Manual for use of Montgomery laryngeal, tracheal, and esophageal prostheses, suppl 125
Staged repair of extensive tracheal and laryngotracheal stenoses, 586
Supraglottic ventilation for laser surgery of larynx in children, 142

Larynx — surgical results
Aerodynamic studies of laryngectomees after Amatsu tracheoesophageal shunt operation, 181
Judgment of voice improvement after recurrent laryngeal nerve section for spastic dysphonia, 137

Laser, carbon dioxide
Anesthetic management for tracheobronchial laser surgery, 556
Carbon dioxide laser resection of superficial oral carcinoma, 547
Experimental investigations on suitability of carbon dioxide laser for stapedotomy, 126
Infantile subglottic hemangiomas, 336
Supraglottic jet ventilation for laser surgery of larynx in children, 142

Letters to the Editor, 545, 546

Lymphangioma
Lymphangiomas of larynx in infants and children, suppl 127

Lymphoma
Cutaneous malignant lymphoma of nasal tip, 208
Lymphoma invading anterior eustachian tube; temporal bone histopathology of functional tubal obstruction, 101
Primary lymphomas of major salivary glands, 107

Magnetic resonance imaging
In acoustic neuroma diagnosis, 16
In encephaloceles, 432

Meniere's disease
Endolymphatic hydrops: can it be controlled? 36
Endolymphatic sac–mastoid shunt surgery, 32
Human endolymphatic duct: possible mechanisms of endolymph outflow, 409
Summating potential and water balance in Meniere's disease, 389

Microlaryngoscope
New adult microlaryngoscope, 207

Middle ear. *See* Ear, middle

Mycosis fungoides
Laryngeal involvement by mycosis fungoides, 275

Myofacial pain dysfunction syndrome
Physical therapy in management of myofacial pain dysfunction syndrome, 225

Myxedema
Audiological and temporal bone findings in myxedema, 278

Mucociliary activity
Effects of neuropeptides on mucociliary activity, 94

Nares
Amylase secretion by nasal glands, 284
Influence of growth hormone on nasal septal growth in rats, 91
Lysozyme producers in nasal mucosa, 193

Nares — nasal cycle
Nasal valve: rhinomanometric evaluation of maximum nasal inspiratory flow and pressure curves, 229
Posture and nasal cycle, 233

Nares — pathology
Characterization of T cell subsets using monoclonal antibodies in nasopharyngeal carcinoma patients, 298
Cutaneous malignant iymphoma of nasal tip, 208
Dipyridamole-induced epistaxis, 302
Giant cell granuloma of paranasal sinuses and nasal cavity, 541
Intranasal microsurgery of all paranasal sinuses, septum, and lacrimal sac with hypotensive anesthesia, 631
Inverted papilloma, 215
Osteoperiosteal flap in treatment of ozena, 645

Negus, Victor
57 years later, 561

Neuropeptides
Effects of neuropeptides on mucociliary activity, 94

Nose. *See* Nares

Nystagmus
Absence of later auditory brain stem response components, congenital horizontal nystagmus, and hypotonia in male infants, 203
Reference values for serial vestibular testing, 83

Obituary
Francis A. Sooy, 651

Oral cavity
Carbon dioxide laser resection of superficial oral carcinoma, 547
Computed tomography in assessment of mandibular invasion by intraoral carcinoma, 383
Current modifications of salivary bypass tube and tracheal T-tube, 121
Inhibition of hamster tongue carcinogenesis by selenium and retinoic acid, 162

Otitis media
Cholesteatoma: epidemiologic study among members of kibbutzim in northern Israel, 365
Experimental retraction pocket cholesteatoma, 639
Rheological properties of middle ear effusions from children with otitis media, suppl 124:1
Significance of kallikrein-kinin system in otitis media, suppl 124:5

Otosclerosis
Dynamics of otosclerosis-like lesions in LP/J mice, 169
Hormonal receptor site alterations in etiopathogenesis of otosclerosis, 294
1984 Santa Barbara state-of-the-art symposium on otosclerosis, 1

Ototoxicity
Of neomycin and its penetration through round window membrane into perilymph, 404

Ozena
Osteoperiosteal flap in treatment of ozena, 645

Papilloma
Inverted papilloma, 215

Paranasal sinuses
Effects of neuropeptides on mucociliary activity, 94
Giant cell granuloma of paranasal sinsues and nasal cavity, 541
Intranasal microsurgery of all paranasal sinuses, septum, and lacrimal sac with hypotensive anesthesia, 631
Stromal cell atypia in sinonasal polyposis, 321

Pathology Consultation
Carcinomas of submandibular and sublingual glands, 211
Heterotopic and accessory salivary tissues, 434
Primary lymphomas of major salivary glands, 107
Recurrent mixed tumor, 543
Stromal cell atypia in sinonasal polyposis, 321
Vascular tumors of salivary glands, 649

Petrosectomy. *See* Temporal bone — mastoid process

Pharynx
Free jejunal grafts for reconstruction of pharynx and cervical esophagus, 348
Pyriform sinus fistula: unusual cause of recurrent retropharyngeal abscess and cellulitis, 377

Prosthesis
Current modifications of salivary bypass tube and tracheal T-tube, 121
Manual for use of Montgomery laryngeal, tracheal, and esophageal prostheses, suppl 125
See also Implant

Prosthesis, ossicular
Bioglass middle ear prosthesis, 78
Clinical assessment of ossicular mobility by ceramic vibrator designed for implantable hearing aids, 323
Malleus grip prosthesis, 531
Porous polyethylene prosthesis, 76
Reconstruction of middle ear with hydroxyapatite implants, suppl 123

Radiotherapy
Long-term results of concurrent polychemotherapy and radiotherapy in patients with stomal recurrence after total laryngectomy, 572

Reconstruction surgery
Experience with partial cricoid resection and thyrotracheal anastomosis, 582
Imbrication reconstruction following partial laryngectomy, 567
Primary tracheoesophageal shunt operation for postlaryngectomy speech with sphincter mechanism, 373
Staged repair of extensive tracheal and laryngotracheal stenoses, 586

Recurrent laryngeal nerve
Judgment of voice improvement after recurrent laryngeal nerve section for spastic dysphonia, 137

Salivary glands
Carcinomas of submandibular and sublingual glands, 211
Primary lymphomas of major salivary glands, 107
Heterotopic and accessory salivary tissues, 434
Vascular tumors of salivary glands, 649

Schwannoma
Histologic findings in two very small intracanalicular solitary schwannomas of eighth nerve, 460
Primary intralabyrinthine schwannoma, 190

Sooy, Francis A. Obituary, 651

Speech disorder. *See* Voice disorders

Speech processing strategies
Comparison of different speech processing strategies on patients receiving same implant, 71

Stapes surgery. *See* Ear, middle — stapes surgery

Stenosis
External auditory canal stenosis and partial atresia without associated anomalies, 505
Risk factors for neonatal acquired subglottic stenosis, 626
Staged repair of extensive tracheal and laryngotracheal stenoses, 586

Stria vascularis. *See* Ear, inner — cochlear division

Syphilis in otology
Predictive value of serologic tests for syphilis in otology, 250

Temporal bone — cancer
Chondroblastoma of temporal bone: unusual histologic features, 260
Lymphoma invading anterior eustachian tube; temporal bone histopathology of functional tubal obstruction, 101
Verrucous carcinoma of temporal bone, 447

Temporal bone — congenital anomalies
Auditory and temporal bone abnormalities in CHARGE association, 480
Temporal bone histopathologic findings in oculoauriculo vertebral dysplasia; Goldenhar's syndrome, 396

Temporal bone — development
Anatomy of round window niche, 444
Method for histopathological analysis of temporal bone and eustachian tube and accessory structures, 267

Temporal bone — histopathology
Audiological and temporal bone findings in myxedema, 278
Cochlear and retrocochlear immune-mediated inner ear disorders, 535
Method for histopathological analysis of temporal bone and eustachian tube and accessory structures, 267
Otogenous cerebellar abscess, 647
Perilymphatic fistula: a histopathologic study, 466
Postnatal growth of human temporal bone; implications for cochlear implants in children, 356

Temporal bone — mastoid process
Acute mastoiditis: review of 69 cases, 222
Endolymphatic sac–mastoid shunt surgery, 32
Obliteration of middle ear and mastoid cleft in subtotal petrosectomy, 5
Tuberculous mastoiditis, 264

Thread test
Of lacrimation, suppl 122

Tongue
Hamster, inhibition of carcinogenesis by selenium and retinoic acid, 162

Trachea
Anesthetic management for tracheobronchial laser surgery, 556
Current modifications of salivary bypass tube and tracheal T-tube, 121
Experience with partial cricoid resection and thyrotracheal anastomosis, 582
Manual for use of Montgomery laryngeal, tracheal, and esophageal prostheses, suppl 125
Staged repair of extensive tracheal and laryngotracheal stenoses, 586

Tracheoesophageal surgery
Aerodynamic studies of laryngectomees after Amatsu tracheoesophageal shunt operation, 181
Primary tracheoesophageal shunt operation for postlaryngectomy speech with sphincter mechanism, 373

Tracheostomy
Current modifications of salivary bypass tube and tracheal T-tube, 121
Long-term results of concurrent polychemotherapy and radiotherapy in patients with stomal recurrence after total laryngectomy, 572
Triticeous cartilage, 106

Tympanic membrane
Air conduction thresholds after myringoplasty and stapes surgery: conventional and high frequency audiometric comparison, 327
Endoscopic method of tympanic membrane fluorescein angiography, 439
Predictive value of tympanometry in middle ear effusion, 46

Usher's syndrome
Histopathology of inner ear in Usher's syndrome as observed by light and electron microscopy, 313

Vocal cord. *See* Larynx

Voice disorders
Acoustic analyses of phonation in patients with Huntington's disease, 288
Aerodynamic studies of laryngectomees after Amatsu tracheoesophageal shunt operation, 181
Judgment of voice improvement after recurrent laryngeal nerve section for spastic dysphonia, 137
Primary tracheoesophageal shunt operation for postlaryngectomy speech with sphincter mechanism, 373
Vocal cord paralysis in children 1 year of age and younger, 622
Vocal cord paralysis in small children, 618

X-Ray Study of the Month
Giant cell granuloma of paranasal sinuses and nasal cavity, 541
Magnetic resonance imaging in encephaloceles, 432
Otogenic cerebellar abscess, 647
Supraclavicular fibromatosis with intraspinal extension, 319
Triticeous cartilage, 106